

REMARKS/ARGUMENTS

Overview

5 In order to comply with the Examiner's demands in the Office Action mailed April 29, 2005, this Office Action has required a very unusual response to a very mechanically complex invention. The Applicant has decided to cancel all Claims except for the first Claims set in this response, and to pursue the canceled claims in a subsequent continuation application. The Applicant further points out that the disclosure and
10 teachings of the elements of these Claims were shared, and consequently, several sections are found repeatedly referred to in the following discussion.

Provisional Double Patenting Rejection

15 Claims 1 to 8 are provisionally rejected over claims 1, 2, 4 5, 7, 8, and 6 respectively in copending application 10/618,524. The Applicant respectfully traverses this provisional rejection. The Claims of the '524 application points to the third inventive mechanism, whereas this application claims embodiments based upon the first mechanism which may further use the third mechanism. While the Applicant does not
20 agree with this provisional rejection, the Applicant is willing to file a terminal disclaimer.

Rejections under 35 USC 112 second paragraph

Claims 1 to 19 and 43 to 54 are rejected as indefinite. The Examiner contends that
25 "there is no definition in the specification for the list 'means for moving said slider' (claims 1 and 43) and 'means for radially moving' (claims 1 and 43)".

Although though the Applicant believes that claims 43-54 are definite, as previously stated, claims 43 to 54 have been canceled in order to focus prosecution upon
30 claims 1- 19. The Applicant believes that claims 1 to 19 are also definite, and a full

discussion of where in the specification support for and a definition for the terms at issue may be found is set forth further below.

Disclosure required under 37 CFR 105 for each claim

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For each pending Claim, the Applicant is required to identify the structures encompassed by each means clause, including the specific basis in the disclosure (page/line/figure).

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1. (original) A mechanism moving a slider toward a track on a disk surface in a hard disk drive, to minimize track mis-registration, comprising:

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means for moving said slider parallel to said disk surface toward said track, when said disk surface is flat, by an actuator arm moving said slider by a lever action through a principal axis with said slider aligned at a bias angle;

wherein a read-write head is encapsulated in said slider facing said rotating disk surface about a radial center in a hard disk drive;

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wherein said read-write head is communicatively coupled with said rotating disk surface to communicatively access said track; and

means for radially moving said slider toward said track when said disk surface is bent, by said lever action through said principal axis at said bias angle causing said slider to move radially toward said track, when said disk surface is bent.

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This Claim is enabled by at least the following text and Figures of the application. This Claim speaks to the following text references in general: page 4 lines 4-7, page 5, lines 9-18, 21, and 22, page 6, lines 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-15, 16-23, and page 10, line 1 to page 11 line 14. Elements of this Claim are shown in
30 Figures 4A to 6A, 7A, 14C, and 14D.

Specifically, the means for moving is disclosed and/or taught by the following text and Figures: page 4 lines 4-7, page 5, lines 9-18, 21, and 22, page 6, lines 20-23, page 9, lines 11-15, and page 10, line 1 to page 11 line 14, as well as Figures 4A to 6A, 7A, 14C, and 14D.

5

Specifically, the means for radially moving is disclosed and/or taught by the following text and Figures: page 4 lines 4-7, page 5, lines 9-18, 21, and 22, page 6, lines 20-23, page 9, lines 11-15, and page 10, line 1 to page 11 line 14, as well as Figures 4A to 6A, 7A, 14C, and 14D.

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2. *(previously presented)* *The mechanism of Claim 1, wherein the means for moving said slider parallel said disk surface arm further comprises means for said actuator arm moving, through a flexure, said slider mounted to said flexure at a second bias angle to said principal axis;*

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wherein the means for radially moving said slider further comprising:

said flexure responding as said disk surface is bent, through said second bias angle, causing said slider to move radially toward said track.

20

This Claim is enabled by at least the following text and Figures of the application. This Claim speaks to the following text references in general: page 4 lines 4-11, page 5, lines 17, 18, 21, and 22, page 6, lines 20-23, page 9, lines 11-23, and page 10, line 1 to page 11 line 14. Elements of this Claim are shown in Figures 4A to 6A, 7A, 14C, and 14D.

25

Specifically, the means for moving is disclosed and/or taught by the following text and Figures: page 4 lines 4-11, page 5, lines 17, 18, 21, and 22, page 6, lines 20-23, page 9, lines 11-23, and page 10, line 1 to page 11 line 14 as well as Figures 4A to 6A, 7A, 14C, and 14D.

30

Specifically, the means for radially moving is disclosed and/or taught by the following text and Figures: page 4 lines 4-11, page 5, lines 17, 18, 21, and 22, page 6, lines 20-23, page 9, lines 11-23, and page 10, line 1 to page 11 line 14 as well as Figures 4A to 6A, 7A, 14C, and 14D.

5

3. (original) *The mechanism of Claim 2, wherein said flexure is mounted to said actuator arm at said second bias angle.*

This Claim is enabled by at least the following text and Figures of the application.

10 This Claim speaks to the following text references in general: page 4 lines 4-16, page 5, lines 17-29, page 6, lines 1-23, page 9, lines 11-28, and page 10, line 1 to page 13 line 6, page 13, line 17 to page 15 line 11. Elements of this Claim are shown in Figures 4A to 6A, 7A to 11D, and 14A to 14D, in particular, Figures 7B to 11D, 14A and 14B.

15 Specifically, the means for moving is disclosed and/or taught by the following text and Figures: page 4 lines 4-16, page 5, lines 17-29, page 6, lines 1-23, page 9, lines 11-28, and page 10, line 1 to page 13 line 6, page 13, line 17 to page 15 line 11, as well as Figures 4A to 6A, 7A to 11D, and 14A to 14D.

20 Specifically, the means for radially moving is disclosed and/or taught by the following text and Figures: page 4 lines 4-16, page 5, lines 17-29, page 6, lines 1-23, page 9, lines 11-28, and page 10, line 1 to page 13 line 6, page 13, line 17 to page 15 line 11, as well as Figures 4A to 6A, 7A to 11D, and 14A to 14D.

25 4. (original) *The mechanism of Claim 3, wherein at least two welds mount said flexure to said actuator arm at said second bias angle.*

This Claim is enabled by at least the following text and Figures of the application.

30 This Claim speaks to the following text references in general: page 4 lines 4-16, page 5, lines 17-29, page 6, lines 1-23, page 9, lines 11-28, and page 10, line 1 to page 13 line 6,

page 13, line17 to page 15 line 11. Elements of this Claim are shown in Figures 4A to 6A, 7A to 11D, and 14A to 14D, in particular, Figure 7B.

Specifically, the means for moving is disclosed and/or taught by the following
5 text and Figures: page 4 lines 4-16, page 5, lines 17-29, page 6, lines 1-23, page 9, lines 11-28, and page 10, line 1 to page 13 line 6, page 13, line 17 to page 15 line 11, as well as Figures 4A to 6A, 7A to 11D, and 14A to 14D.

Specifically, the means for radially moving is disclosed and/or taught by the
10 following text and Figures: page 4 lines 4-16, page 5, lines 17-29, page 6, lines 1-23, page 9, lines 11-28, and page 10, line 1 to page 13 line 6, page 13, line 17 to page 15 line 11, as well as Figures 4A to 6A, 7A to 11D, and 14A to 14D.

5. (original) *The mechanism of Claim 4, wherein at least two*
15 *welds mount said flexure to a load beam coupled to said actuator arm at said second bias angle.*

This Claim is enabled by at least the following text and Figures of the application. This Claim speaks to the following text references in general: page 4 lines 4-16, page 5,
20 lines 17-29, page 6, lines 1-23, page 9, lines 11-28, and page 10, line 1 to page 13 line 6, page 13, line17 to page 15 line 11. Elements of this Claim are shown in Figures 4A to 6A, 7A to 11D, and 14A to 14D, in particular, Figure 7B.

Specifically, the means for moving is disclosed and/or taught by the following
25 text and Figures: page 4 lines 4-16, page 5, lines 17-29, page 6, lines 1-23, page 9, lines 11-28, and page 10, line 1 to page 13 line 6, page 13, line 17 to page 15 line 11, as well as Figures 4A to 6A, 7A to 11D, and 14A to 14D.

Specifically, the means for radially moving is disclosed and/or taught by the
30 following text and Figures: page 4 lines 4-16, page 5, lines 17-29, page 6, lines 1-23,

page 9, lines 11-28, and page 10, line 1 to page 13 line 6, page 13, line 17 to page 15 line 11, as well as Figures 4A to 6A, 7A to 11D, and 14A to 14D.

5 6. (original) *The mechanism of Claim 2, wherein said slider is mounted to said flexure at said second bias angle.*

This Claim is enabled by at least the following text and Figures of the application. This Claim speaks to the following text references in general: page 4 lines 4-16, page 5, lines 17-29, page 6, lines 1-23, page 9, lines 11-28, and page 10, line 1 to page 13 line 6, page 13, line 17 to page 15 line 11. Elements of this Claim are shown in Figures 4A to 6A, 7A to 11D, and 14A to 14D, in particular, Figures 8A to 10F.

Specifically, the means for moving is disclosed and/or taught by the following text and Figures: page 4 lines 4-16, page 5, lines 17-29, page 6, lines 1-23, page 9, lines 11-28, and page 10, line 1 to page 13 line 6, page 13, line 17 to page 15 line 11, as well as Figures 4A to 6A, 7A to 11D, and 14A to 14D.

Specifically, the means for radially moving is disclosed and/or taught by the following text and Figures: page 4 lines 4-16, page 5, lines 17-29, page 6, lines 1-23, page 9, lines 11-28, and page 10, line 1 to page 13 line 6, page 13, line 17 to page 15 line 11, as well as Figures 4A to 6A, 7A to 11D, and 14A to 14D.

 7. (original) *The mechanism of Claim 2, wherein said second bias angle is between one-half degree and three degrees.*

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This Claim is enabled by at least the following text and Figures of the application. This Claim speaks to the following text references in general: page 4 lines 4-11, page 5, lines 17, 18, 21, and 22, page 6, lines 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-23, and page 10, line 1 to page 11 line 14, page 15 line 12 to page 16, line 17, page 17 lines 10-16. Elements of this Claim are shown in Figures 4A to 6A, 7A, 14C to 16C, 20 and 21, in particular 15A to 16C, 20 and 21.

Specifically, the means for moving is disclosed and/or taught by the following text and Figures: page 4 lines 4-11, page 5, lines 17, 18, 21, and 22, page 6, lines 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-23, and page 10, line 1 to page 11 line 14, page 15 line 12 to page 16, line 17, page 17 lines 10-16, as well as Figures 4A to 6A, 7A, 14C to 16C, 20 and 21.

Specifically, the means for radially moving is disclosed and/or taught by the following text and Figures: page 4 lines 4-11, page 5, lines 17, 18, 21, and 22, page 6, lines 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-23, and page 10, line 1 to page 11 line 14, page 15 line 12 to page 16, line 17, page 17 lines 10-16, as well as Figures 4A to 6A, 7A, 14C to 16C, 20 and 21.

8. (original) The mechanism of Claim 7, wherein said second bias angle is between three-quarters degree and five-halves degrees.

This Claim is enabled by at least the following text and Figures of the application. This Claim speaks to the following text references in general: page 4 lines 4-11, page 5, lines 17, 18, 21, and 22, page 6, lines 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-23, and page 10, line 1 to page 11 line 14, page 15 line 12 to page 16, line 17, page 17 lines 10-16. Elements of this Claim are shown in Figures 4A to 6A, 7A, 14C to 16C, 20 and 21, in particular 15A to 16C, 20 and 21.

Specifically, the means for moving is disclosed and/or taught by the following text and Figures: page 4 lines 4-11, page 5, lines 17, 18, 21, and 22, page 6, lines 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-23, and page 10, line 1 to page 11 line 14, page 15 line 12 to page 16, line 17, page 17 lines 10-16, as well as Figures 4A to 6A, 7A, 14C to 16C, 20 and 21.

Specifically, the means for radially moving is disclosed and/or taught by the following text and Figures: page 4 lines 4-11, page 5, lines 17, 18, 21, and 22, page 6,

lines 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-23, and page 10, line 1 to page 11 line 14, page 15 line 12 to page 16, line 17, page 17 lines 10-16, as well as Figures 4A to 6A, 7A, 14C to 16C, 20 and 21.

5 9. (original) *The mechanism of Claim 1, wherein said actuator arm includes said slider attached through a flexure to a load beam and wherein said load beam is aligned to said principal axis at said bias angle.*

10 This Claim is enabled by at least the following text and Figures of the application. This Claim speaks to the following text references in general: page 4 lines 4-11, page 5, lines 9-18, 21, and 22, page 6, lines 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-23, and page 10, line 1 to page 11 line 14, page 14 line 12 to page 16, line 18, page 17 lines 10-16. Elements of this Claim are shown in Figures 4A to 6A, 7A, 14C to 16C, 20 and
15 21, in particular, Figures 4A to 6A.

 Specifically, the means for moving is disclosed and/or taught by the following text and Figures: page 4 lines 4-11, page 5, lines 9-18, 21, and 22, page 6, lines 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-23, and page 10, line 1 to page 11 line 14, page
20 14 line 12 to page 16, line 18, page 17 lines 10-16 as well as Figures 4A to 6A, 7A, 14C to 16C, 20 and 21.

 Specifically, the means for radially moving is disclosed and/or taught by the following text and Figures: page 4 lines 4-11, page 5, lines 9-18, 21, and 22, page 6, lines
25 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-23, and page 10, line 1 to page 11 line 14, page 14 line 12 to page 16, line 18, page 17 lines 10-16 as well as Figures 4A to 6A, 7A, 14C to 16C, 20 and 21.

 10. (original) *The mechanism of Claim 9, wherein said actuator arm includes an extended base plate with a bent edge attaching to a bent*
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edge of said load beam to create said load beam aligned to said principal axis at said bias angle.

This Claim is enabled by at least the following text and Figures of the application.

5 This Claim speaks to the following text references in general: page 4 lines 4-11, page 5, lines 9-18, 21, and 22, page 6, lines 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-23, and page 10, line 1 to page 11 line 14, page 14 line 12 to page 16, line 18, page 17 lines 10-16. Elements of this Claim are shown in Figures 4A to 6A, 7A, 14C to 16C, 20 and 21, in particular Figures 4A, 4B and page 11, lines 3-8.

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Specifically, the means for moving is disclosed and/or taught by the following text and Figures: page 4 lines 4-11, page 5, lines 9-18, 21, and 22, page 6, lines 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-23, and page 10, line 1 to page 11 line 14, page 14 line 12 to page 16, line 18, page 17 lines 10-16 as well as Figures 4A to 6A, 7A, 14C to 16C, 20 and 21.

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Specifically, the means for radially moving is disclosed and/or taught by the following text and Figures: page 4 lines 4-11, page 5, lines 9-18, 21, and 22, page 6, lines 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-23, and page 10, line 1 to page 11 line 14, page 14 line 12 to page 16, line 18, page 17 lines 10-16. Elements of this Claim are shown in Figures 4A to 6A, 7A, 14C to 16C, 20 and 21.

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11. (original) The mechanism of Claim 9, wherein said actuator arm includes a mounting surface base plate with a bent edge attaching to said load beam to create said load beam aligned to said principal axis at said bias angle.

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This Claim is enabled by at least the following text and Figures of the application.

This Claim speaks to the following text references in general: page 4 lines 4-11, page 5, lines 9-18, 21, and 22, page 6, lines 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-23, and page 10, line 1 to page 11 line 14, page 14 line 12 to page 16, line 18, page 17 lines

30

10-16. Elements of this Claim are shown in Figures 4A to 6A, 7A, 14C to 16C, 20 and 21, in particular Figures 4A-4D, and page 11, lines 3-14.

Specifically, the means for moving is disclosed and/or taught by the following
5 text and Figures: page 4 lines 4-11, page 5, lines 9-18, 21, and 22, page 6, lines 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-23, and page 10, line 1 to page 11 line 14, page 14 line 12 to page 16, line 18, page 17 lines 10-16 as well as Figures 4A to 6A, 7A, 14C to 16C, 20 and 21.

10 Specifically, the means for radially moving is disclosed and/or taught by the following text and Figures: page 4 lines 4-11, page 5, lines 9-18, 21, and 22, page 6, lines 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-23, and page 10, line 1 to page 11 line 14, page 14 line 12 to page 16, line 18, page 17 lines 10-16. Elements of this Claim are shown in Figures 4A to 6A, 7A, 14C to 16C, 20 and 21.

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12. (original) The mechanism of Claim 11, wherein said actuator arm includes said mounting surface base plate with said bent edge attaching to a bent edge of said load beam to create said load beam aligned to said principal axis at said bias angle.

20 This Claim is enabled by at least the following text and Figures of the application. This Claim speaks to the following text references in general: page 4 lines 4-11, page 5, lines 9-18, 21, and 22, page 6, lines 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-23, and page 10, line 1 to page 11 line 14, page 14 line 12 to page 16, line 18, page 17 lines
25 10-16. Elements of this Claim are shown in Figures 4A to 6A, 7A, 14C to 16C, 20 and 21, in particular Figures 4B-4D, and page 11, lines 6-14.

Specifically, the means for moving is disclosed and/or taught by the following
30 text and Figures: page 4 lines 4-11, page 5, lines 9-18, 21, and 22, page 6, lines 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-23, and page 10, line 1 to page 11 line 14, page

14 line 12 to page 16, line 18, page 17 lines 10-16 as well as Figures 4A to 6A, 7A, 14C to 16C, 20 and 21.

Specifically, the means for radially moving is disclosed and/or taught by the
5 following text and Figures: page 4 lines 4-11, page 5, lines 9-18, 21, and 22, page 6, lines 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-23, and page 10, line 1 to page 11 line 14, page 14 line 12 to page 16, line 18, page 17 lines 10-16. Elements of this Claim are shown in Figures 4A to 6A, 7A, 14C to 16C, 20 and 21.

10 *13. (original) The mechanism Claim 12, wherein said actuator arm includes said mounting surface base plate with said bent edge attaching through a connection beam to said bent edge of said load beam to create said load beam aligned to said principal axis at said bias angle.*

15 This Claim is enabled by at least the following text and Figures of the application. This Claim speaks to the following text references in general: page 4 lines 4-11, page 5, lines 9-18, 21, and 22, page 6, lines 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-23, and page 10, line 1 to page 11 line 14, page 14 line 12 to page 16, line 18, page 17 lines 10-16. Elements of this Claim are shown in Figures 4A to 6A, 7A, 14C to 16C, 20 and
20 21, in particular Figure 4C, and page 11, lines 9-11.

Specifically, the means for moving is disclosed and/or taught by the following text and Figures: page 4 lines 4-11, page 5, lines 9-18, 21, and 22, page 6, lines 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-23, and page 10, line 1 to page 11 line 14, page
25 14 line 12 to page 16, line 18, page 17 lines 10-16 as well as Figures 4A to 6A, 7A, 14C to 16C, 20 and 21.

Specifically, the means for radially moving is disclosed and/or taught by the following text and Figures: page 4 lines 4-11, page 5, lines 9-18, 21, and 22, page 6, lines
30 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-23, and page 10, line 1 to page 11 line

14, page 14 line 12 to page 16, line 18, page 17 lines 10-16. Elements of this Claim are shown in Figures 4A to 6A, 7A, 14C to 16C, 20 and 21, in particular Figure 4C.

5 14. (original) *The mechanism of Claim 9, wherein said actuator arm includes an extended base plate with a bent edge attaching to said load beam to create said load beam aligned to said principal axis at said bias angle.*

 This Claim is enabled by at least the following text and Figures of the application.
10 This Claim speaks to the following text references in general: page 4 lines 4-11, page 5, lines 9-18, 21, and 22, page 6, lines 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-23, and page 10, line 1 to page 11 line 14, page 14 line 12 to page 16, line 18, page 17 lines 10-16. Elements of this Claim are shown in Figures 4A to 6A, 7A, 14C to 16C, 20 and 21, in particular, Figures 4A and 4C, page 11, lines 3-5 and 9-11.

15 Specifically, the means for moving is disclosed and/or taught by the following text and Figures: page 4 lines 4-11, page 5, lines 9-18, 21, and 22, page 6, lines 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-23, and page 10, line 1 to page 11 line 14, page 14 line 12 to page 16, line 18, page 17 lines 10-16 as well as Figures 4A to 6A, 7A, 14C
20 to 16C, 20 and 21.

 Specifically, the means for radially moving is disclosed and/or taught by the following text and Figures: page 4 lines 4-11, page 5, lines 9-18, 21, and 22, page 6, lines 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-23, and page 10, line 1 to page 11 line
25 14, page 14 line 12 to page 16, line 18, page 17 lines 10-16 as well as Figures 4A to 6A, 7A, 14C to 16C, 20 and 21.

 15. (original) *The mechanism of Claim 14, wherein said actuator arm includes said extended base plate with said bent edge attaching to a bent edge of said load beam to create said load beam aligned to said principal axis at said bias angle.*
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This Claim is enabled by at least the following text and Figures of the application. This Claim speaks to the following text references in general: page 4 lines 4-11, page 5, lines 9-18, 21, and 22, page 6, lines 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-23, and page 10, line 1 to page 11 line 14, page 14 line 12 to page 16, line 18, page 17 lines 10-16. Elements of this Claim are shown in Figures 4A to 6A, 7A, 14C to 16C, 20 and 21, in particular, Figures 4A and 4C, page 11, lines 3-5 and 9-11.

Specifically, the means for moving is disclosed and/or taught by the following text and Figures: page 4 lines 4-11, page 5, lines 9-18, 21, and 22, page 6, lines 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-23, and page 10, line 1 to page 11 line 14, page 14 line 12 to page 16, line 18, page 17 lines 10-16 as well as Figures 4A to 6A, 7A, 14C to 16C, 20 and 21.

Specifically, the means for radially moving is disclosed and/or taught by the following text and Figures: page 4 lines 4-11, page 5, lines 9-18, 21, and 22, page 6, lines 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-23, and page 10, line 1 to page 11 line 14, page 14 line 12 to page 16, line 18, page 17 lines 10-16 as well as Figures 4A to 6A, 7A, 14C to 16C, 20 and 21.

16. (original) The mechanism of Claim 15, wherein said actuator arm includes said extended base plate with said bent edge attaching through a connection beam to said bent edge of said load beam to create said load beam aligned to said principal axis at said bias angle.

This Claim is enabled by at least the following text and Figures of the application. This Claim speaks to the following text references in general: page 4 lines 4-11, page 5, lines 9-18, 21, and 22, page 6, lines 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-23, and page 10, line 1 to page 11 line 14, page 14 line 12 to page 16, line 18, page 17 lines 10-16. Elements of this Claim are shown in Figures 4A to 6A, 7A, 14C to 16C, 20 and 21, in particular, Figure 4C, page 11, lines 9-11.

Specifically, the means for moving is disclosed and/or taught by the following text and Figures: page 4 lines 4-11, page 5, lines 9-18, 21, and 22, page 6, lines 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-23, and page 10, line 1 to page 11 line 14, page 14 line 12 to page 16, line 18, page 17 lines 10-16 as well as Figures 4A to 6A, 7A, 14C to 16C, 20 and 21.

Specifically, the means for radially moving is disclosed and/or taught by the following text and Figures: page 4 lines 4-11, page 5, lines 9-18, 21, and 22, page 6, lines 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-23, and page 10, line 1 to page 11 line 14, page 14 line 12 to page 16, line 18, page 17 lines 10-16 as well as Figures 4A to 6A, 7A, 14C to 16C, 20 and 21.

17. (original) *The mechanism of Claim 1,*
15 *wherein said actuator arm is coupled to said load beam via a first*
 finger and a second finger; wherein said first finger flexes differently from
 said second finger when said disk surface is bent; and
 wherein the means for radially moving said slider further
 comprises said first finger flexing differently from said second finger
20 *flexing causing said slider to move radially toward said track, when said*
 disk surface is bent.

This Claim is enabled by at least the following text and Figures of the application. This Claim speaks to the following text references in general: page 4 lines 4-7, page 5, lines 9-18, 21, and 22, page 6, lines 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-15, 16-23, and page 10, line 1 to page 11 line 14. Elements of this Claim are shown in Figures 4A to 6A, 7A, 14C, and 14D, in particular page 11, lines 15-19.

Specifically, the means for moving is disclosed and/or taught by the following text and Figures: page 4 lines 4-7, page 5, lines 9-18, 21, and 22, page 6, lines 20-23,

page 9, lines 11-15, and page 10, line 1 to page 11 line 14, as well as Figures 4A to 6A, 7A, 14C, and 14D.

Specifically, the means for radially moving is disclosed and/or taught by the
5 following text and Figures: page 4 lines 4-7, page 5, lines 9-18, 21, and 22, page 6, lines 20-23, page 9, lines 11-15, and page 10, line 1 to page 11 line 14, as well as Figures 4A to 6A, 7A, 14C, and 14D.

10 *18. (original) The mechanism of Claim 17, wherein a width of said first finger differs from a width of said second finger to cause said first finger to flex differently from said second finger.*

This Claim is enabled by at least the following text and Figures of the application. This Claim speaks to the following text references in general: page 4 lines 4-7, page 5,
15 lines 9-18, 21, and 22, page 6, lines 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-15, 16-23, and page 10, line 1 to page 11 line 14. Elements of this Claim are shown in Figures 4A to 6A, 7A, 14C, and 14D, in particular Figure 6A.

Specifically, the means for moving is disclosed and/or taught by the following
20 text and Figures: page 4 lines 4-7, page 5, lines 9-18, 21, and 22, page 6, lines 20-23, page 9, lines 11-15, and page 10, line 1 to page 11 line 14, as well as Figures 4A to 6A, 7A, 14C, and 14D.

Specifically, the means for radially moving is disclosed and/or taught by the
25 following text and Figures: page 4 lines 4-7, page 5, lines 9-18, 21, and 22, page 6, lines 20-23, page 9, lines 11-15, and page 10, line 1 to page 11 line 14, as well as Figures 4A to 6A, 7A, 14C, and 14D.

30 *19. (original) The mechanism of Claim 17, wherein a shape of said first finger differs from a shape of said second finger to cause said first finger to flex differently from said second finger.*

This Claim is enabled by at least the following text and Figures of the application. This Claim speaks to the following text references in general: page 4 lines 4-7, page 5, lines 9-18, 21, and 22, page 6, lines 20-28, page 7, lines 1-3, 11-13, page 9, lines 11-15,
5 16-23, and page 10, line 1 to page 11 line 14. Elements of this Claim are shown in Figures 4A to 6A, 7A, 14C, and 14D, in particular Figures 4A to 5D and 7A.

Specifically, the means for moving is disclosed and/or taught by the following text and Figures: page 4 lines 4-7, page 5, lines 9-18, 21, and 22, page 6, lines 20-23,
10 page 9, lines 11-15, and page 10, line 1 to page 11 line 14, as well as Figures 4A to 6A, 7A, 14C, and 14D.

Specifically, the means for radially moving is disclosed and/or taught by the following text and Figures: page 4 lines 4-7, page 5, lines 9-18, 21, and 22, page 6, lines
15 20-23, page 9, lines 11-15, and page 10, line 1 to page 11 line 14, as well as Figures 4A to 6A, 7A, 14C, and 14D.

Disclosure required under 37 CFR 105 for earlier statements

20 The Applicant is required to provide specific support (page/line/figure plus claim recitations) for the statements made in the March 21, 2005 paper arguing that the invention is drawn to a different invention from that claimed in SN 10/618524. The relevant portion of that paper is quoted below.

25 “The 10/818,524 application claims an invention in the class and subclass as this application. This application and the ‘524 application have the same inventors, assignees, and very similar specifications. This application speaks to embodiments which all include limitations including the bias angle, with subordinate claims pointing to limitations including
30 the second bias angle. The ‘524 application claims embodiments in which only the second bias angle is called out.”

These statements are supported in this Application by examining the pending independent claim. These claims have the relevant wording regarding the bias angle bolded to simplify their discernment.

5

1. (original) A mechanism moving a slider toward a track on a disk surface in a hard disk drive, to minimize track mis-registration, comprising:

10 means for moving said slider parallel to said disk surface toward said track, when said disk surface is flat, by an actuator arm moving said slider by a lever action through a principal axis with said slider aligned at a **bias angle**;

wherein a read-write head is encapsulated in said slider facing said rotating disk surface about a radial center in a hard disk drive;

15 wherein said read-write head is communicatively coupled with said rotating disk surface to communicatively access said track; and

means for radially moving said slider toward said track when said disk surface is bent, by said lever action through said principal axis at said **bias angle** causing said slider to move radially toward said track, when
20 said disk surface is bent.

Summary of the Response

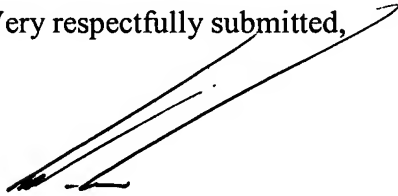
25 This Office Action has required a very unusual response to a very mechanically complex invention. It has been deemed best to focus prosecution on claim 1-19 and to pursue the canceled claims in a later filed continuation. The Applicant's response has addressed all of the issues raised by the Examiner. Accordingly, the Applicant respectfully requests allowance of the application.

Request for Telephone Interview if the Application is not in condition for allowance

5 The Applicant believes that this response places the pending Claims in condition
for allowance. The Applicant requests a telephone interview if the Examiner finds
otherwise.

Very respectfully submitted,

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